

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IT2004/000691

International filing date (day/month/year)
13.12.2004

Priority date (day/month/year)
19.12.2003

International Patent Classification (IPC) or both national classification and IPC
A47C27/18, A47C27/10

Applicant
BERETTA, Giovanni

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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1.3. Since D1 also discloses:

" the air chambers (10) are grouped into **one** or more **groups** of mutually connected air chambers (10)",

the two part form of claim 1 is not correct.

3.0. Claim 1 has been understood as follows:

a mattress comprising air inlets (4), an electric compressor (12), electric valves (14), a control unit (15), an automatic switch (18), on or more pressure sensors (20) and an external cover (1) in which a padding (2) including ~~one or more~~ air chambers (3) suitable for being inflated for supporting the body of at least one user is arranged, wherein the air chambers (3) are connected by means of the air inlets (4) to ~~an~~ the electric compressor (12) for sucking air from the outside and pump it into the air chambers (3), said inlets (4) being provided with the electric valves (14) connected to ~~a~~ the control unit (15) which is in turn connected to an automatic switch (18) arranged along an electric line between the compressor (12) and an electric power source (19), wherein the control unit (15) opens or closes the electric valves (14) and/or the automatic switch (18) according to control signals coming from one or more pressure sensors (20), ~~characterized in that~~ wherein the air chambers (3) are grouped into one or more groups (A, B, C, D) of mutually connected air chambers (3), ~~and characterized in~~ that the pressure sensors (20) measure the pressure in one or more air chambers (3) of one group (A, B, C, D), ~~which differing~~ from the air chambers (3) of the same group (A, B, C, D) connected to the inlets (4).

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. II Priority

1. ☐ The validity of the priority claim has not been considered because the International Searching Authority does not have in its possession a copy of the earlier application whose priority has been claimed or, where required, a translation of that earlier application. This opinion has nevertheless been established on the assumption that the relevant date (Rules 43*bis*.1 and 64.1) is the claimed priority date.
2. ☒ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

one group, ~~which differing~~ from the air chambers (10) of the same group connected to the inlets (18).

2.1. The subject-matter of claim 1 is therefore novel (Article 33(2) PCT) The problem to be solved by the present invention may be regarded as:

How to precisely measure the pressure in the mutually connected air chambers.

2.2. The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

The feature of measuring the pressure not close to the air inlet of the solution provided by claim 1 is neither disclosed in nor rendered obvious by either one of the available prior art documents.

2.3. Claims 2-15 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Re Item VIII.

1.0. The application does not meet the requirements of Article 6 PCT, because claim 1 is not clear.

1.1. It is clear from characterising part of the claim 1, dependent claims and throughout whole description that plurality of chambers namely chambers are essential to the definition of the invention.

Since independent claim 1 does not contain these feature it does not meet the requirement from Article 6 PCT taken in combination with Rule 6.3 (b) (I), (ii) PCT that independent claims must contain all technical features essential to the definition of the invention.

1.2. It is not clear from the claim 1 which features of the mattress are part of the claimed invention as such.

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Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-15
	No: Claims	
Inventive step (IS)	Yes: Claims	1-15
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item II.

1.0. The priority of the application had been found invalid because of the introduction into claim 1 of the following subject-matter:

".. the pressure sensors (20) **measure** the pressure **in one** or more air **chambers** (3) .."

which extends beyond the content of the priority application (EP03425813.7) as filed.

Re Item V.

1.0. Reference is made to the following documents:

D1 : US 5 142 717 A

2.0. Document D1 (see fig. 3,5), which is considered to represent the most relevant state of the art, discloses (the references in parentheses applying to this document):

a mattress comprising an external cover (24) in which a padding (22) including ~~one or more~~ (see Item VIII) air chambers (10) suitable for being inflated for supporting the body of at least one user is arranged, wherein the air chambers (10) are connected by means of air inlets (16) to an electric compressor (36) for sucking air from the outside and pump it into the air chambers (10), said inlets (16) being provided with electric valves (68) connected to a control unit (70) which is in turn connected to an automatic switch (see col. 6 lines 30-35) arranged along an electric line between the compressor (36) and an electric power source, wherein the control unit (70) opens or closes the electric valves (68) and/or the automatic switch (18) according to control signals coming from one or more pressure sensors (26), ~~characterized in that~~ (see Item VIII) wherein the air chambers (10) are grouped into one or more groups of mutually connected air chambers (10).

From this, the subject-matter of independent claim 1 differs in that:

the pressure sensors (26) measure the pressure in one or more air chambers (10) of